

Cancel claims 2, 3, 5-9, 11, 13-19, 21-24.

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Claims 1, 4, 10, 12, 20 have been amended as follows:

1. A fuel cell system, comprising:

hydrogen fuel;

a CO removal system employing non-Faradaic electrochemical modification of catalyst activity, the system including -

(a) a working electrode having a catalyst providing rapid dynamic response of the removal system over a temperature range of 0 to 800 degrees Celsius,

(b) a counter electrode,

(c) an electrolyte between the working electrode and counter electrode,

(d) a power source; and

a fuel cell stack.

4. The fuel cell system of claim 1 wherein the catalyst is a layer of material formed on the working electrode.



Q3 10. The fuel cell system of claim 1 wherein the power source is a DC battery.

Q4 12. The fuel cell system of claim 1, wherein the working electrode and the counter electrode are coupled in series with the power source, such that current flows between the working electrode and the counter electrode.

Q5 20. The fuel cell system of claim 1 wherein the catalyst is selected from the group consisting of -

- (a) Cu/ZnO
- (b) Cu/CuO
- (c) ABO<sub>3</sub>
- (d) zeolite.

(New claims 25 - 29 have been added as follows:)

Q6 25. A fuel cell system, comprising:

a source of a hydrogen fuel;

a CO removal system using non-Faradaic electrochemical modification of catalyst activity, said removal system including a working electrode, an electrolyte, a counter electrode, and a power source, wherein said working electrode includes a catalyst selected from the group consisting of -

- (a) Cu/ZnO
- (b) Cu/CuO
- (c) ABO<sub>3</sub>
- (d) zeolite; and,

a fuel stack.



26. The fuel cell system of claim 25 wherein said removal system provides dynamic response over a temperature range from 0 to 850 degrees Celsius.

27. The fuel cell system of claim 25 wherein the catalyst is a layer of material formed on the working electrode.

28. The fuel cell system of claim 25, wherein the power source is a DC battery.

29. The fuel cell system of claim 25, wherein the working electrode and the counter electrode are coupled in series with the power source, such that current flows between the working electrode and the counter electrode.

#### REMARKS

Applicants appreciate the clear and concise comments contained in the Office Action of February 3, 2003. The Office Action has been carefully considered, and the claims have been amended accordingly. Specifically, claims 1, 4, 10, 12 and 20 have been amended, claims 2, 3, 5-9, 11, 13-19, 21-24 have been cancelled, and new claim 25-29 have been added. Applicants appreciate the indication that claims 17-20 contain allowable subject matter; these claims have been